REMARKS

Applicants respectfully request entry of the amendments and remarks submitted herein. Claim 1 has been amended to clarify that the isolated nucleotide sequence promotes transcription and tissue-specific expression. Support for the amendment can be found, for example, at page 3, lines 19-22. New claims 32-35 have been added. Support for new claims 32-35 can be found, for example, throughout the specification and in the originally filed claims. Applicants submit that no new matter has been added by this amendment. Reconsideration of the pending application is respectfully requested.

The 35 U.S.C. §112 Rejections

Claims 1 and 9-12 stand rejected under 35 U.S.C. §112, first paragraph, as the Examiner asserted that those claims fail to comply with the written description requirement. The Examiner asserted that the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection.

The Examiner stated that the genus of claim 1 nucleotides encompasses 9 kb or smaller fragments which may lie inside or outside the 9 kb fragment described by the specification. Claim 1 has been amended herein to clarify that the fragments are within the 9 kb nucleotide sequence.

Furthermore, with respect to fragments of the murine villin gene, pages 19-21 of the specification, for example, disclose various constructs that were generated by deleting nucleotides from the 9 kb mouse villin gene. Thus, fragments of the 9 kb mouse villin gene were, in fact, generated and tested for β-galactosidase activity. Figure 3B illustrates the deletion constructs and the results obtained. Moreover, the sentence bridging pages 21 and 22 discloses the correlation between the deletion constructs and their tissue-specific expression:

> Taken together, these results from transient transfection of cultured cells demonstrate that (i) the mouse villin genomic sequence, extending from –3.5 to

> +5.5 kb, directs specifically an efficient level expression of the β-galactosidase reporter gene in intestine-derived cells, (ii) this level is dramatically reduced when the intronic intestine-specific hypersensitive site HS II or the region upstream from the (+1) site is deleted, (iii) lack of the entire first intron seems to partially restore the intestine-related ability in promoting transcription, and (iv) lack of the entire first intron in combination with intestine-specific hypersensitive site HS IV is correlated with a strong increase of ability in promoting transcription in kidney-derived cells.

Therefore, Applicants have identified a number of different elements within the murine villin gene that affect transcription, and accordingly, have written description support for the claimed nucleotide sequences.

Figure 7 illustrates the deleted constructs and the results obtained in tissue-specific expression. Furthermore, page 20 of the specification discloses that the transcription start site is necessary for efficient, specific transcription.

With respect to claim 10, page 4, lines 21-25 of the specification, for example, discloses deletion of the claimed 9 kb nucleotide sequence. This deletion can be one or more nucleotides as long as the function of promoting transcription and tissue-specific expression of the villin gene is not substantially affected. A person skilled in the art at the time this application was filed would know how to delete one or moer nucleotides from a sequence. The specification further describes how to measure transcription and tissue-specific expression. Therefore, in view of the amendments to claim 1, Applicants submit that claim 10 satisfies the written description requirement.

With respect to claim 11, the Examiner asserted that the description fails to describe the necessary elements that are required for promoter function, specifically those elements affecting the level of expression of the murine villin gene. Nevertheless, the Examiner recognizes that the specification teaches one 9 kb region from –3.5 to +5.5 that has regulatory activity affecting the level of expression of the murine villin gene, as well as the fragments recited in claims 4 to 8. In light of the amendments to claim 1, Applicants submit that claim 11 satisfies the written description requirement.

The specification discloses the elements of the murine villin gene that are necessary to confer tissue-specific expression. Thus, Applicants submit that the specification does, in fact, reasonably convey to the person skilled in this art that the inventors had possession of the

claimed invention with respect to murine villin gene fragments. In view of the amendments and remarks herein, Applicants respectfully request that the rejection of claims 1 and 9-12 under 35 U.S.C. §112, first paragraph, be withdrawn.

CONCLUSION

Applicants respectfully request that claims 1-12 and 32-35 be allowed. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: December 23, 2003

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